

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A downhole injection valve assembly for controlling the downhole insertion of chemical into a well through capillary tubing, said downhole injection valve assembly comprising:

an elongated tubular housing including an inlet end and an outlet end;

5 said elongated tubular housing including means for attachment to the capillary tubing at said inlet end;

a first ~~adjustable mechanically biased check valve having an adjustable mechanical bias, said first check valve being positioned within said elongated tubular housing at said inlet end, the amount of said adjustable mechanical bias on said first adjustable mechanically biased check valve being determined by the position of a movable rod within said elongated tubular housing characteristics of said well, the chemical being inserted into the well, and the characteristics of the system for causing the chemical to flow through the capillary tubing;~~

15 a second ~~mechanically biased check valve having a fixed mechanical basis positioned within said elongated tubular housing at said outlet end to prevent the entry of gas, fluids or solids from said well bore into the interior portion of said elongated tubular housing; an outlet port positioned between said first and second check valves.~~

2. (Currently Amended) The downhole injection valve assembly as defined in Claim 1 wherein said adjustable mechanical bias is set according to the characteristics of said the well include including the depth of the well, and the flowing bottom-hole pressure at the bottom of the well.

3. (Currently Amended) The downhole injection valve assembly as defined in Claim 4~~2~~ wherein said adjustable mechanical bias is set according to the characteristics of the said system for causing the chemical to flow through the capillary tubing into the well includes including at least the chemical pump pressure, the size of the capillary tubing size, and the length 5 of the capillary tubing length.

4. (Currently Amended) The downhole injection valve assembly as defined in Claim 1 wherein said adjustable mechanical bias on said first check valve is provided by a coil spring.

5. (Currently amended) The downhole injection valve assembly as defined in Claim 1 wherein said fixed mechanical bias on said second check valve is provided by a coil spring.

6. (Original) The downhole injection valve assembly as defined in Claim 1 wherein said first check valve is a ball and seat valve.

7. (Original) The downhole injection valve assembly as defined in Claim 6 wherein said seat is formed from a hardened material.

8. (Currently Amended) The downhole injection valve assembly as defined in Claim 4 wherein said adjustable mechanical bias on said first check valve is determined by the amount of compression of said coil spring provided by said movable rod.

9. (Currently Amended) The downhole injection valve assembly as defined in Claim 8 wherein the amount of compression on said coiled spring position of said movable rod is determined by the position of threaded engagement of said movable rod with a spring carrier positioned within said elongated tubular housing.

10. (Currently Amended) A system for the control of a condition at the downhole portion of a well, said system comprising:

a chemical selected for its ability to control the condition at the downhole portion of a well;

5 a capillary tube for conducting said chemical from the surface to the downhole portion of the well;

a chemical pump for causing said chemical to flow through said capillary tube;

an injection valve assembly including:

an elongated tubular housing including an inlet end and an outlet end;

10 said elongated tubular housing including means for attachment to the capillary tubing at said inlet end;

a first adjustable mechanically biased check valve having an adjustable mechanical bias, said first check valve being positioned within said elongated tubular housing at said inlet end, the amount of said adjustable mechanical bias on said first adjustable mechanically biased check valve being determined by the position of a movable rod within said elongated tubular housing characteristics of said well, the chemical being inserted into the well, and the characteristics of the system for causing the chemical to flow through the capillary tubing;

a second mechanically biased check valve having a fixed mechanical bias

20 positioned within said elongated tubular housing at said outlet end to prevent the entry of gas, fluids or solids from said well bore into the interior position of said elongated tubular housing;

an outlet port positioned between said first and second check valves.

11. (Currently Amended) The system as defined in Claim 410 wherein said adjustable mechanical bias is set according to the characteristics of said the well including include the depth of the well, and the flowing hole pressure at the bottom of the well.

12. (Currently Amended) The system as defined in Claim 411 wherein said adjustable mechanical bias is set according to the characteristics of the said system for causing the chemical to flow through the capillary tubing into the well includes including chemical pump pressure.

13. (Currently Amended) The system as defined in Claim 410 wherein said adjustable mechanical bias on said first check valve is provided by a coil spring.

14. (Currently Amended) The system as defined in Claim 410 wherein said fixed mechanical bias on said second check valve is provided by a coil spring.

15. (Currently Amended) The system as defined in Claim 410 wherein said first check valve is a ball and seat valve.

16. (Original) The system as defined in Claim 15 wherein said seat is formed from a hardened material.

17. (Currently Amended) The system as defined in Claim 413 wherein said adjustable mechanical bias on said first check valve is determined by the amount of compression of said coil spring provided by said movable rod.

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18. (Currently Amended) The system as defined in Claim 817 wherein the ~~amount of compression on said coiled springs position of said movable rod is determined by the position of threaded engagement of said movable rod with a spring carrier positioned within said elongated tubular housing.~~